DOCUMENT RESUME

ED 413 769 FL 024 879

AUTHOR Johnston, Malcolm
TITLE Stages of the Acquisition of Spanish as a Second Language. Australian Studies in Language Acquisition No. 4.
INSTITUTION Western Sydney Univ., Macarthur (Australia). Language Acquisition Research Centre.
ISSN ISSN-1323-9961
PUB DATE 1995-08-00
NOTE 35p.
PUB TYPE Reports - Research (143)
EDRS PRICE MF01/PC02 Plus Postage.
DESCRIPTORS Foreign Countries; *Grammar; *Interlanguage; *Language Processing; Language Research; *Learning Processes; Linguistic Theory; *Spanish

ABSTRACT

Seven postulated stages of acquisition of Spanish as a second language are examined within the context of Processability Theory, whose predictive paradigm is applicable to interlanguage development in any second language (L2). The theory argues that the sequence in which the target language unfolds in the learner is determined by the sequence in which processing prerequisites needed to handle the language's components develop. The logic, concepts, and principles underlying processability are first outlined. Development of grammar, a lexical-functional model, the nature of agreement in Spanish, and word order are then discussed in relation to processability. Finally, the seven stages are examined and charted. It is concluded that, viewed from this perspective, the seven stages of acquisition are distinct. Appended materials include notes on learner language and examples of interlanguage. Contains 17 references. (MSE)

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Australian Studies in Language Acquisition

Malcolm Johnston

Stages of Acquisition of Spanish as a Second Language

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ASLA Australian Studies in Language Acquisition No.4, August 1995

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Stages of the Acquisition of Spanish as a Second Language

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NLLIA/LARC

University of Western Sydney, Macarthur

1995

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ISSN 1323 - 9961

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Foreword

In this publication Malcolm Johnston presents a detailed outline of the stages of acquisition of Spanish as a second language within current understanding of Processability Theory (briefly summarised in the present work) which is a direct descendant of the Multidimensional Model developed by the ZISA team (Meisel, J., Clahsen, H. & Pienemann, M., 1981) and subsequent developments of a "predictive framework" (cf Pienemann, 1984, Johnston 1985, Pienemann and Johnston 1987) within a speech processing approach to understanding second language acquisition.

The predictive paradigm established by the theory is applicable to interlanguage development in any L2. Earlier applications of this paradigm involved languages such as German and English where word order plays a central rôle in development. The specific interest of the present rather "technical" paper lies in the fact that Johnston applies this paradigm to the development of Spanish as a second language, where morphosyntactic complexity and its consequences for development play a significant role. Which leads him to discuss in some detail issues such as the "pro-drop" status of Spanish and its allegedly "free" word order.

Johnston's application of Processability Theory to Spanish is not a purely theoretical exercise as it relies, for confirmation and validation, on actual interlanguage data. Some of the stages are not attested, as yet, in the available Spanish as a Second Language database held at LARC UWSM.

What is available however was collected from a variety of learners of Spanish as a Second Language in Australia by a number of researchers. These are, in alphabetical order, María del Mar Alvarez, Cristina González, Carmen Mur and María Elena Torruella (c.f. these researchers' 1993 work).

The financial and structural support of the National Languages and Literacy Institute of Australia for SLA research and for this project in particular is thankfully acknowledged.

Bruno Di Biase
NLLIA/LARC
UWS Macarthur

1 Theoretical Background

There are now seven postulated stages of acquisition for Spanish as a second language. These are for word order and morphology and are based on an examination of data from some twenty learners. Nearly all of the informants are native speakers of English; those few who are not are highly competent speakers of English as a second language. In any case, given that the stages were worked out on the basis of the universal speech processing prerequisites used by Manfred Pienemann and myself in our application of the ZISA paradigm to English, and subsequently developed in considerably more detail by Pienemann , as per his 1994 manuscript on "Processability Theory", the stages should be good for learners from any language background, and there is, in fact some evidence that even speakers of a language as closely related to Spanish as Italian conform to the predictions that have been made.

Since the monograph on Processability Theory is yet to be published, I will provide a brief account of its essential content. This account is drawn (almost verbatim) from a forthcoming paper by Pienemann and Håkansson. It is as follows:

The main line of argument followed in Processability Theory is this: the sequence in which the target language (TL) unfolds in the learner is determined by the sequence in which processing prerequisites that are needed to handle the TL's components develop. This approach derives its explanatory power from the fact that one set of facts, developmental patterns, can be reduced to a second set of facts, processing prerequisites. Also implied is the following: the learner can only entertain hypotheses which he or she can process.

These points about processing and acquisition bear some resemblance to proposals about processing complexity and acquisition, the logic of which is similar to the one applied here: what is easy to process is easy to acquire. The "classic" proponents of this approach are Slobin and T.G. Bever (Slobin 1973; 1975). Slobin's framework, which evolved over a long period of time consists of a number of strategies which concern two aspects of the acquisition process: the processing of language and the discovery of its formal and functional properties. It should be noted, however, that Slobin's framework aims at a wider explanation than our own, which only addresses the sequential problem of language acquisition. The reasons for constraining our approach will be provided below.

Bever's original work (Bever 1970) focussed on a different aspect of language processing. Bever demonstrated that the shape of linguistic forms depends on the cognitive basis for the processing of such forms. If one wants to distinguish between performance and competence and if one further attributes those cognitive processing factors to performance, then this position can be summarised as follows: "Performance shapes competence" (cf. J.D. Fodor 1978).

Leaving aside the performance/competence distinction, it soon becomes apparent that the two equations "processing-acquisition" and "processing-linguistic" forms are related. It has been suggested by several authors (e.g. C.-J. Bailey 1973; D. Bickerton 1975; D.I. Slobin 1971) that performance constraints are enforced in natural languages through the acquisition of the language by a new generation of speakers. These authors have demonstrated that historical changes in languages can be understood as such enforcement of processing constraints at points of generation change or shift in the speech community.

1.1 Processability

Processability Theory basically runs along the following lines of logic: mature language processing speed can only be attained because the different components of the language production device operate automatically and without active attention (cf. Levelt 1989). It has been shown that when word meaning and propositional planning are activated they become available in short term memory (STM). This is important in that it allows forward planning on the part of the speaker who is then in a position to cope with what Levelt (1983) termed the linearization problem. For instance as Levelt points out, propositions in language do not necessarily follow the natural order of events. Consider the following example: *Before the man rode off, he mounted his horse.*

In the above example, the events described in the second clause happen before those described in the first. In order to produce such a sentence, then, the speaker has to store one clause in STM. Similar things happen in the processing of grammatical form. Let us take subject-verb agreement as an example: *He gives her a book.*

The insertion of the verb ending hinges crucially on information created before the verb is uttered - namely, person and number marking in the pronoun subject. Subject-verb agreement can only occur if this information is stored and subsequently becomes available when the verb is produced. In the case of mature speakers, Levelt assumes that such plans are highly automated and that there is a special memory buffer dedicated to

the storage of such information, which, because of its task-specific nature, is accessible only to automated plans.

For language learners, however, their situation as processors of language is quite different from that of native speakers. The learner has not automated any plans for the production of the target language and consequently has no access to the task-specific grammatical buffer. The only possible solution to this computational conflict is to keep the transfer of syntactic information to a minimal level; the more information to be transferred, the less space there is for other memory-depended processes, including word-access itself.

Linearization is therefore a key factor in determining processing prerequisites. Another factor is the generation of any grammatical information to be processed. In some cases, this information is contained in the lexical entry of particular words and is activated by the processor's accessing such words. The tense of a sentence, for instance, is a piece of information which, according to Kaplan and Bresnan (1982), is given in the lexical entries for particular verb forms. Therefore the processing of tense marking in the verb does not require any transfer of grammatical information, since the information required is local to the item in which the morphological process occurs. Learning of this type of tense marking therefore depends primarily on the presence of the correct lexical entry.

In contrast, subject-verb agreement does involve the creation and subsequent transfer of information during processing. For a speaker to infer and represent person and number marking of the subject noun phrase, the constituent structure of that phrase must be processed. Amongst other things this operation includes:

- a) identification of beginning and end of NP-subj;
- b) identification of hierarchical c-structure;
- c) identification of the head of the phrase;
- d) identification of the lexical category of the head, and
- e) identification of lexical entries if the head is a pronoun.

It is only after the completion of these processes that the relevant information becomes available.

A third factor that increases the load of processing prerequisites is the identification of the target position of transferred information. It has been shown in many aspects of memory research that the end-point positions (i.e. beginning and end) of any sequence of events are more salient than internal positions (Murdock 1962). Target positions can readily be identified if they are cognitively salient in this way. In most cases,

however, the identification of target positions requires some degree of syntactic processing. In the case of subject-verb agreement, for instance, the predicate of the sentence has to be identified. For the morphological process to be fully functional the lexical category in question must be selected.

The transfer of grammatical information can further occur within a constituent or between constituents. An example for the first case is English plural marking. For instance:

```
[[two]DET [car-s]N]NP
   |          |
  pl         pl
```

An example of transfer between constituents - subject-verb agreement - has already been given above.

It should be quite clear now that the transfer of information between constituents involves less linearity than the transfer of information within constituents, as in the example with the plural. Information has to be held longer in memory, as do more phrases, and, in addition, the processing of the phrases in question must occur at a deeper level.

From the above principles of information transfer Pienemann (1994) has proposed a hierarchy of complexity which can be summarised as follows:

- (1) no sequence of constituents
- (2) no exchange of information - use of "local" information
- (3) exchange of information between salient constituents
- (4) exchange of information from internal to salient constituent
- (5) exchange of information between internal constituents
- (6) exchange of information between internal constituents in subordinate clauses.

The above constitutes my necessarily brief summary of the speech processing component of Processability Theory and the nature and role of speech processing prerequisites.

1.2 Development of Grammar

A further important aspect of Processability Theory is the proposition that, in language acquisition, what actually develops in conjunction with processing prerequisites is a grammar. The type of grammar Pienemann employs to expound this idea is a grammar from the family of so-called

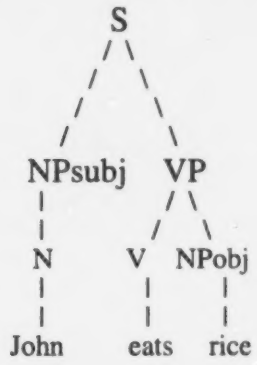
"unification grammars". Pienemann uses Lexical-Functional Grammar, (LFG) as exemplified in Bresnan (1982) for actual examples of how processing prerequisites and a formal theoretical grammar interact in language learning. It should be noted that he could just as well have used Head-Driven Phrase Structure Grammar (HPSG) or some other member of the unification family of grammars to make his points. The pivotal word here is "unification". The concept of feature unification is importantly, a concept with a high degree of psychological plausibility. Interestingly, it is also one of the few concepts in grammatical theory which has continued to serve in computational linguistics, where the goal is, of course, to emulate natural language processing.

There is insufficient space in an article of this length to provide even a summary of the main features of LFG. What I will restrict myself to here is providing a sketch of what unification actually entails. Following Pienemann, I will use an example from English. This will hopefully serve two purposes. First, it will be a familiar example from a familiar language. Second, it will serve to highlight one important difference between English and Spanish in regard to the interaction of processing prerequisites and a formal grammar.

LFG basically consists of three components, (1) a constituent-structure similar to that of a transformational grammar in surface-structure mode (there are, however, no transformations in LFG), (2) a lexicon whose entries contain syntactic and semantic information relevant to the construction of sentences, and (3) a functional component which compiles for every sentence the grammatical information needed to semantically interpret the sentence. These three components are subject to a small number of well-formedness conditions, which, if violated, will render any sentence ungrammatical.

The nature of unification can, I hope, be conveyed by looking at what happens in a constituent-structure involving some extra annotation. The annotation itself is actually a not entirely adequate indication of how the functional component of LFG works. This might give the impression that this latter component is not particularly important. To prevent any misunderstanding of this kind I will state here that the workings of functional-structures are central to LFG and its cross-linguistic explanatory capacity, and that I have side-stepped this aspect of LFG only in order to maintain some degree of clarity and brevity in exemplifying the process of feature unification.

Consider the following annotated c-structure:



This structure can be generated by the following phrase structure rules:

S -> NP VP
NP -> N
VP -> V NP

Now, what very briefly happens in this structure is that certain information about the subject of the verb (in LFG, relations such as "subject" and "object" are considered to be primitives) - namely, that it is third person and singular is reflected in the choice of verb form (at least in the present tense) by the retrieval of the entry "eats" (rather than "eat"). The verb form must agree with the subject in this case, and, in LFG the relevant features - SUBJ = 3sg, V = "eats" - are unified at the level of the sentence (as the arrows on the annotated c-structure are meant to show, reflecting as they do the flow of information in the sentence).

This, in essence, is feature unification (albeit in a very boiled-down form). Information of the kind borne by the subject and the verb, is, as already remarked, more properly dealt with through the mechanism of f-structures, and lexical entries are in reality far more complex than those shown here. Failure of lexical entries to meet any of the various well-formedness conditions results in ungrammaticality. Failures of this kind are precisely what we find in learner language. Another alternative is that the learner will avoid the production of certain structures in order to avoid failure. It should also be noted that the apparently simple structure above is not so - either grammatically or in terms of processing prerequisites. Grammatically, it requires the identification of a number of lexical categories (the subject and object are noun phrases, the "-s" form is a verb. In processing terms, information is exchanged across constituent

boundaries (that is, across the VP). This type of agreement is termed "inter-phrasal" in Processability Theory, while that of the "two cars" type given above is termed "phrasal", since no constituent boundary is involved. To quote Pienemann & Håkansson (forthcoming):

> *"It should now be possible to see the principle behind Processability Theory; the unification of features is a formal account of the exchange of information. Since unification is the basic process that "drives" LFG, the implementation of our levels of processing makes it possible to formally relate a large and potentially open number of grammatical structures to processing complexity and thus processability."*

It is rather difficult to give an account of the reasoning behind the stages in something as short as this paper so what I propose is that I provide the bare bones of my predictions and some of the theoretical considerations crucial to them here. As analysis of the data progresses a more inclusive paper will be published.

1.3 The Nature of Agreement

The background to the linguistic considerations which had to be addressed in developing predictions for Spanish are as follows. First Spanish is a language with a much wider range of possible word orders than either German or English: possible grammatical sentences in Spanish encompass all six permutations of S,V and O. (While SOV is infrequent and somewhat odd-sounding to native speakers, they will generally admit that it is acceptable in some contexts). Thus, on the face of it, such "freedom" in word order (with its concomitant lack of "obligatory" rearrangements) poses a problem in the formulation of word order rules.

Second, Spanish is a so-called "pro-drop" language and the status of such morphological phenomena as apparent subject-verb agreement is consequently different from superficially similar phenomena in languages like English or German where pronominal subjects are almost always obligatory: it does not, for instance, really make sense to say that a verb agrees with a pronominal subject which, in the default case, is absent from constituent structure. (Unless, of course, your theory of grammar allows for underlying representations of these structures: I have to admit that I am not an adherent of this class of theory).

In regard to the problem of agreement (or, more precisely, inter-phrasal agreement), I decided that a treatment of Spanish in which the "pronominal" element was in the verb morphology itself was the only one which really conformed to what was observable from the data, where

learners soon attempt to use appropriately conjugated forms of the verb to indicate person and number. This, after all, is what they overwhelmingly get in the input, and Spanish verbal paradigms are generally predictable and unambiguous in their encoding of these features (a final "-s", for instance, indicates second person singular (familiar) everywhere except in the preterite, and even there "-ste" is really a case of the "-s" marker occurring before a phonetic reflex of the second person singular proforms "tú", "ti" or "te" itself).

In grammatical theory, LFG provides exactly this kind of treatment.

Within LFG, there seems to be some variation in the precise status of such pronominal elements (cf. Bresnan & Mchombo 1987, where agreement markers have the status of grammatical arguments, or Andrews 1990 where they have a 'PRO' status in the morphology which is similar to but nevertheless distinct from full argument status), but these differences are of no material importance to the level of description one is working at in formulating developmental stages, and are perhaps just notational. In any case, it is fair to say, I think, that one crucial feature for languages previously dealt with in our paradigm had to be rethought: for Spanish, subject-verb marking is not an inter-phrasal phenomenon, and can be predicted to occur at an earlier stage.

However an LFG treatment of agreement has further interesting ramifications for Spanish. These involve the function of clitic pronouns, which can be interpreted as operating as markers of the object. The pattern of occurrence of direct object clitics varies from dialect to dialect of Spanish (what is ungrammatical in Peninsular Spanish is the preferred option in Buenos Aires - Porteño - Spanish; see Andrews 1990 for a description of this), but the pattern of occurrence of indirect object clitics is more stable (and closer to Porteño usage of the direct object form). While these differences will very possibly be reflected in learner data for different dialects they too are immaterial for the basic point about object marking in relation to learning. This is that it is object agreement - use of clitic pronouns - which constitutes the principal inter-phrasal morphological operation for Spanish, and which can be predicted to manifest itself at the level where this class of operation becomes possible. In the stages I will outline for Spanish, object agreement occurs at Stage Five, which is where subject-verb agreement occurs in English or German.

1.4 Free Word Order?

I have dealt with the two problem areas I mentioned in reverse order because, for Spanish, the interaction of word order and morphology is an

important one. I mentioned that, compared to configurational languages like English, Spanish has an ostensibly much freer word order. This "freedom", however, is a question of perspective, and I would argue that it is much more apparent than real if one takes the problem of information distribution into account. Within theoretical linguistics there is a considerable amount of disagreement, as far as I can see about the utility of notions like "topic" and "focus". In LFG, for instance, Bresnan has incorporated these notions into her theoretical framework (cf. Bresnan & Mchombo 1987) but other practitioners either reject the concepts as excessively fuzzy (A. Andrews, p.c.) or view with suspicion the extra dimension of power that such an incorporation may have on the explanatory parsimony of the theory (P. Petersen, p.c.).

Be this as it may, I believe that an approach to language learning which is based on speech processing cannot remain neutral over the question of the status of such notions. Processing prerequisites, after all, make very specific claims about information distribution (for example elements that are salient are claimed to be more accessible than those which are not). Notions like "topic" and "focus" themselves deal with information distribution. And, in a language such as Spanish, word orders can be quite clearly accounted for in terms of information distribution. Certain orders occur because particular elements are topicalized or focussed, very often as responses to the demands of a given discourse situation. The capability of a speaker to produce appropriately ordered sentences is, I would argue, quite clearly a matter of their linguistic competence: speakers who do not conform to the norms in this regard are, at least in my experience, quickly judged to be non-native. In this sense the word order of a language like Spanish is not free.

This situation is in fact formalised to a degree in that there are various classes of verbs (i.e. un-accusative verbs) which require, say postverbal subject placement in most discourse situations (e.g. "llamó Alberto", "vino Cristina"). As to the nexus between word order and morphology in Spanish, the point is the following. Most rearrangements of word order, including, of course, those that would be formally characterised as topicalization, require that a clitic copy of the object and/or indirect object be attached to the verb. Effectively this means that a learner of Spanish cannot produce at least three of the six possible orders of subject, verb and object until he or she is capable of marking object agreement. In addition, since "strong" object pronoun forms alone (i.e. pronoun NPs like "mí", "ti", "nos" "él", "ella", etc.) cannot be used in pronominal sentences (e.g. *"vi a él") the learner cannot perform any operations involving object pronoun coreference. (Once again, in some dialects clitics and "strong" forms are mutually exclusive, while in others they may co-occur). It should also be said that questions of information distribution govern the

possible word orders learners have at their disposal at earlier, "pre-syntactic" stages of acquisition, in relation to the placement of, for example, salient elements. This, and the interaction between word order and the evolution of feature assignment can be seen quite clearly in the organisation of the stages of acquisition themselves.

Having, I hope, provided a basic sketch of the reasoning which underpins the layout of the stages, I will now list the stages themselves. I will try to enumerate the main features of each stage, but given limitations of time and space, there may be some structures missing. Readers should be able to fill these gaps in themselves if they are familiar with the descriptions which exist for German and English. One example: phrasal phenomena such as noun, adjective and determiner agreement will obviously precede inter-phrasal ones like object-verb agreement.

2 The Stages of Spanish

2.1 Stage One

This is, as in our description for English, no more than the stage at which the learner produces monomorphemic chunks - either words or formulae. One point, however, that is worth emphasising in the case of Spanish is that the transition from formulaic to productive usage will require particular attention, given the frequency of locutions with ostensible morphological marking like "se dice" or "me llamo". As has been done for English, these transitions are amenable to interpretation by means of a Bailey-type wave model with implicational scaling and lexical lists (from this point of view, a formula is really just a rule with one lexical environment). This approach worked well for English (Johnston 1985), and looks as promising for Spanish.

Although it is obviously necessary on theoretical grounds to have some mechanism in place to deal with the question of productive usage, in practical terms it is not normally that difficult to employ a simpler set of criteria to eliminate formulae from a working analysis (cf. Pienemann Johnston & Brindley 1988).

2.2 Stage Two

While from a typological viewpoint it is not really clear to me whether Spanish is a verb-initial or a verb-second language it seems to be quite

definite that the canonical order stage is SVO. This is certainly the case for English speakers, but there is also some evidence that Italian speakers follow the same course even when using pronoun subjects. It may be that SVO order is the most semantically transparent order for learners with VO language backgrounds (if not for all learners). SVO order could also be a logical result of a strategy of using pronoun NPs if the speaker is in doubt about verbal morphology even though he or she may already be a speaker of a "pro-drop" language.

2.3 Stage Three

At this stage VS and VOS orders should appear. Here the subject, and the verb, are both still in salient positions in the case of VOS
Subject postposing is a frequent focussing device in mature Spanish (e.g. "rompió la ventana el niño") and, as mentioned some verbs (unaccusatives) take postverbal subjects as a default (e.g. "llegó el jefe"). Other phenomena involving initial or final salient positions, such as use of sentence initial adverbs (e.g. "todavía voy a la universidad"), and WH Questions (e.g. "¿dónde está la estación?") are predicted to occur at this stage. In Spanish, there are even some cases of obligatory subject-verb inversion, as in German. One such case involves "ya": one says, for example, "ya viene el jefe", and not "*ya el jefe viene".

One point that needs to be made clear here is that, since word order phenomena are not in general obligatory in Spanish, structures such as VOS are not necessarily predicted to occur. English speakers, we have found, persevere with SVO order and seem to avoid VOS. Nevertheless these structures should be possible. Furthermore, as we shall see variation in word order and object marking are, at later stages inextricably entwined. It therefore follows that a variational phenomenon, such as following a configuration of SVO when it is unnecessary and pragmatically incorrect could quite possibly retard the acquisition of crucial rules like object marking with clitics.

A further, although still tentative, prediction is that, with postverbal subject NPs in production, "pronominal" verbal subject morphology (as elaborated on above) may begin to emerge, since it too is postverbal.

If, as cannot be definitely discounted, this phenomenon does not occur until the following stage, it is at least possible to say that postverbal subject NPs provide the necessary prerequisite for morphological pronominal subject marking. This particular area is one which is rather clouded in our data by the problem of determining the onset of productive usage. In fact, as will become clear in the next section, linguistic

considerations would suggest that Stage Four is probably a better candidate for morphological subject marking. This is one area where implicational scales of the kind mentioned above will have to be constructed to give a proper picture of what is happening, as one is clearly dealing with a gradual process and specific lexical items.

2.4 Stage Four

Stage four can be characterised in terms of word order by the appearance of VSO. In Spanish there is one particular constraint on VSO declaratives: this is that the subject can only be indefinite (e.g. "rompió un/*el niño la ventana" - some native speakers will judge definite subjects in highly contrastive contexts as marginally acceptable). This constraint is not operational in the case of Yes/No Questions, and these will also emerge at this time, in accordance with the internal element into salient position principle for appropriately corresponding SVO declaratives.

The constraint on VSO declaratives is developmentally significant because it is the first case so far cited where a feature of a particular element (i.e. definiteness) affects a rule of production.

This also implies that the lexical category of the element must be identified since definiteness is a feature of noun phrases. For Yes/No Questions in VSO form (which is, of course, optional) it is correspondingly necessary that the category of verb be identified. As with the corresponding stages for English and German, this marks the end of "pre-syntactic" operations.

The activation of feature specification allows us to make a number of other predictions for Stage Four. In Spanish, direct object NPs which are both human and definite are marked with the preposition "a". It can be predicted that this form of marking will begin to emerge at this stage. The marking of objects naturally implies their identification as such, and this constitutes a precondition for the appearance of object agreement in the following stage.

It might be timely at this point just to reiterate the caveat made about morphological subject marking made under the previous heading: it is not yet clear to me whether this emerges here or at the previous stage. It could be argued, for instance, that the definite existence of lexical categories as well as the identification of grammatical relations like "object" are preconditions for productive verbal morphology. Following this line of thought together with the principle that in the matter of predictions it is prudent to err on the side of conservatism, there is, in the absence of

decisive data, a case for withholding the actual emergence of verbal subject marking until Stage Four.

In addition, and in the light of the above considerations - there is a further development at Stage Four. This is the appearance (in the productive sense) of reflexive-type verbs (e.g. "me acuerdo", "te sientes" "siéntate"). The reasoning behind this prediction (which is verified in the data) is that, of all the clitic forms, it is this form which is simplest to produce, since there is always agreement between the subject's person and number and those of the "object" (strictly speaking, of course, this latter is not always a bona fide object in terms of its grammatical relations - the form, however, is the same).

Given that structures like "se puede ir" fall within the ambit of this last prediction the use of impersonal "se" constructions it is at least a structural possibility at Stage Four. It may be, however, that the semantics of these impersonals are too complex for them to occur with any frequency, especially as they can be avoided in various ways (e.g. "puedes entrar sin visa"). This is a question I am currently investigating in the data.

2.5 Stage Five

This stage, as mentioned earlier, represents a crucial junction between morphological operations and those involving word order, and marks the beginning of inter-phrasal unifications; it is characterised by the emergence of object clitics (e.g. "la ventana la rompió el niño"). The term "object" here encompasses both direct and indirect object relations (e.g. "a Alfredo le dieron un libro"), although we have not predicted that both relations will occur and be encoded simultaneously by clitics: in other words, it is not predicted that sequences of clitics will be produced.

Stage Five is also the stage where word order frees up. As in the examples given above, OV word orders now become possible with OVS being the most common and SOV the least. (However, sentences like "yo a usted la conozco" do occur - this particular example is from Ernesto Sabato).

2.6 Stage Six

This stage is characterised by the production of sequences of clitics (e.g. "el libro se lo dio", "se me impidió ir"). As the reader may be aware, Spanish imposes various constraints on these sequences such as indirect

object before direct object, II I III person order, the "se" rule, etc. (cf. Perlmutter 1971 for discussion). The production of sequences of clitics is consequently predicted to be of a higher order of difficulty than the production of singletons, and this complexity is postulated to be of a higher order than the production of sentences of the requisite propositional complexity for multiple clitic encoding to take place.

2.7 Stage Seven

This final stage in the current set involves operations with subordinate clauses and is predicated on the finding that subordinate clauses are processed differently from main clauses. Examples of relevant structures would be "ese hombre al que vi ayer" (object relative) or "la mujer a quien (le) dio el libro" (indirect object relative). The process of interest here is the prepending to, or fusion with, the complementizer of the prepositional object marker "a" (as in the first example) or the homophonous preposition "a" (in the second).

In both examples, information from what is now a gap in the subordinate clause has to be inserted in the main clause. Given the finding (cited in Pienemann 1994) that subordinate clauses are processed both as constituents of the matrix and as sentences in their own right, this kind of information transfer is dependent on a + or - ROOT distinction being made and bridged. In terms of speech processing operations, what happens here is similar to CANCEL-INVERSION in English or VERB FINAL in German.

DEVELOPMENTAL STAGES FOR SPANISH AS AN L2

(LARC, University of Western Sydney, Macarthur)

Stage	Syntax	Examples	Principle
7	Relative Pronoun Marking S "a" REL PN [S...]	*Es ese hombre al que vi anoche*	Exchange of Information between main & subordinate clause
6	Clitic Sequencing X clitic V(S)X	*Se lo dio ayer* *Se me impidió ir*	Production of Clitic Pronoun Sequences
5	"Free" Word Order O clitic V(S)X (Inter-phrasal agreement)	*La ventana la rompió el niño* *A Alberto le di un libro*	Marking of Objects with Clitic Pronouns - Object Agreement
4	Subject Medial VSO Question inversion Simple inversion Adverb fronted inversion Consolidated verb-marking "Reflexive" pronoun (S=O) Phrasal agreement	*Rompió un niño la ventana* *¿Dónde está la calle Olmos?* *¿Es usted de este país?* *Ya llegó el tren* *Fui, No hablaba nada* *Me imagino, Siéntese* *Vi unas torres altas*	Principle: Emergence of Categories and Features in Internal Position
3	Subject Final VOS VS Adverb fronting Restricted verb marking	*Come la manzana el niña* *Vienen mi amigos* *Todavía voy a la universidad* *Son estudiantes, Vengo*	Thematic Information in Initial or Final Position
2	Canonical Order SVO	*Ellos es estudiantes* *Yo voy allí*	Semantic Order/NVN
1	Words or Formulae	*¿Cómo está usted?* *Me llamo John* *Gracias, Perdón, Permiso*	Undifferentiated Chunks

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3 Conclusions

The seven stages listed above constitute my current predictions for the stages of acquisition for Spanish. As I mentioned at the beginning of this article, what precedes is the bare bones of our description and the most crucial aspects of the reasoning behind it. The predictions outlined here were made before any detailed analysis of the data had been conducted, and in this sense they are genuine predictions.

Subsequent analysis of the data appears to confirm them, and a much more extensive computer-aided analysis has now begun: this will be the acid test. I should emphasise again that I have not included all the structures listed for investigation. Also, within the ambit of the structures listed there are a great many sub-questions which are still under investigation. One example of such a question is what, if any, is the pattern of feature emergence in the marking of verbs and noun phrases (i.e. the relationships between person, number, tense and aspect for verbs and person number and gender in noun phrases).

In addition, I have had little to say about variation here. Obviously there is going to be a fair degree of variation for most of the morphological features listed, especially where cases of agreement are concerned. I think that this can be handled in a fairly predictable way with the framework we now have in place, but it is a task that still remains to be carried out. With Spanish, however, there are some questions of considerable interest in relation to such classic variational features as the copula. The two Spanish copular verbs "ser" and "estar" have considerably more semantic content than the English or German copular equivalents, and I believe this fact will entail a revaluation of their status as variational features. This too is a task which will require careful consideration. Although it is a point I have not touched on here, issues such as those to do with the copula are part of what I think is an important overall characteristic of languages with frequent verb-initial constructions, namely that such languages have a typological tendency to encode a considerable amount of information on the verb, and to do this in particular ways. This characteristic has, I believe, important considerations for questions of learnability. I have been doing a fair bit of thinking and writing about this kind of typological/learnability issue, but I have had to omit any reference to it here for reasons of space. Once again, this research will be written up in due course: last year, in collaboration with Kirsten Huter, I applied some of these ideas to Japanese, which as a verb-final language is a typological mirror of Spanish, and we found them to be quite productive in helping to formulate predictions about the early stages of acquisition for Japanese.

It has already been noted that the variational dimension of Spanish still requires a great deal of investigation. Work currently being conducted by Manfred Pienemann and myself on the relationship between variation and development indicates that less simplifying forms of variation are much more developmentally propitious than their simplifying counterparts. It has already been indicated that the rigid use of one particular type of word order in Spanish my have developmental consequences. This is yet another interesting area of difference between languages which are typologically akin to Spanish and those which resemble English or German. The status of word order as a variational phenomenon in Spanish is yet another area of considerable interest for future investigation.

To sum up, there are both loose ends and avenues of interest to be followed up in the account given here. While I am reasonably certain that the seven stages presented are distinct, I cannot entirely discount the possibility that I may have identified as a stage what will later turn out to be a substage. This and other disclaimers aside, this paper should serve as a place-marker until more detailed and more thoroughly confirmed results are available.

In order that the reader can look at a more schematic account of the stages of acquisition, I have included a table with examples of relevant structures and the processing and grammatical principles involved in their production, and, in addition, short speech-samples from learners from stages Two to Five inclusive. It is worth noting that in these samples there is an increasing propositional and lexical complexity in general along with the specific acquisition of predicted developmental features. This is as one would expect, and is another encouraging sign for the current predictions.

APPENDICES

A Some Points About Learner Language

Some Points about Learner Language Systematicity

Learners build their own system when acquiring a first or second language.

Errors are frequently developmental in nature; they are a natural and necessary part of the learning process. Some errors may not be part of the developmental process and may distort or derail it. We need a properly constructed and motivated theory of learning to distinguish between these different kinds of error.

Language Development is Strictly Ordered

For any given language there are a considerable number of syntactic structures and morphological features which are learnt in a fixed order. This order is determined by general constraints on how human beings process information and develop increasingly more complex levels of automation in speech production. A learner must proceed stage by stage; there is no way of "beating" the order of acquisition by leap-frogging over stages. A learner at a given stage must be able to perform the operations which characterise previous stages.

Properly Focussed Instruction Can Accelerate Learning

There is a considerable body of empirical evidence that teaching interventions can accelerate the rate at which language is learnt and increase the number of structures a learner can produce (cf. the studies by Manfred Pienemann) if a learner is "ready" to learn. "Ready" in this context means that the learner is at a stage of acquisition directly prior to that of the new material. Conversely, if a learner is not ready no amount of teaching will induce learning.

Teaching Practice Can Benefit from the Study of SLA

The benefits to be accrued from empirically-based research into learning do not just apply to the classroom: since our research does not imply any particular teaching methodology, its results can be incorporated into the development of different types of syllabus and curriculum for different teaching and learning situations. Thus if teachers can determine what stage of acquisition a learner is at they can facilitate the learning process in a number of ways. Assessment procedures based on knowledge about stages of acquisition have been developed for English (for instance, "Rapid Profile"), and can be developed for other languages. The work that has been done on Spanish will be able to be applied in this way in the near future.

B Examples Of Interlanguage

The following pages are examples of interlanguage from learners of Spanish from Stage Two to Stage Five. It is interesting to note that, along with the targeted structures indicative of the stages exemplified, there is a general increase in the complexity of the language used. And, indeed, this is what one would have expected: it is the learner's whole grammar which is growing. Examples of Stage One language have not been included, as they are too simplified to be of interest.

Stage Two

A estas nerviosa?

I si esta nerviosa: (Formula)

A eh Suzanne donde vives?

I vivi en (.) vivo en Yagoona Yagoona: (Formula)

A si en que calle?

I en (.) Rosa calle

A con quien vives?

I vivo con ah mi marido y mis dos (.) y mis dos dos hijas y mis (.) mis dos dos perras y un gato y

A y dime como se llaman

I mis hijas llaman Helen y Stephanie: (Canonical Order)

A que edad tienen?

I que edad

A cuantos años tienen

I si Helen tiene ah cinco años y Stephanie tengo ah tiene tres años: (Canonical Order)

A muy bien estudias

I si estudio idiomas en la universidad

A y como se llama la universidad?

I de universidad llaman Macarthur Institute: (Canonical Order)

A que idiomas estudias?

I estudio (.) aleman y español

A muy bien

I y idiomas

A muy bien muy bien eh Suzanne como se llaman tus padres?

I mis padres llaman Bryan y (.): (Canonical Order)

A donde viven?

I viven en el (.) en Sydney

Stage Three

I en este momento (.) ah voy aqui por estudiar español (.) y voy a verte por la tutorial en español cuatro b: (Adverb Fronting)

A que haces profesionalmente?

I profesionalmente ah en enseño (.) soy profesora (.) de ingles a los imigrantes nuevas (.) en un centro en Burwood: (Adverb Fronting)

A cuanto tiempo?

I por ah trabaje ah ah por AMES se (.) llama por tres años

A y como son tus estudiantes?

I ahm son simpaticos (.) siempre son simpaticos siempre si si me gustan mucho

A tienen mucho interes por aprender?

I si mucho interes (.) depende ah la clase algunas veces tengo un clase ah que tiene que tiene (.) un livelo livelo (.) ah: (Adverb Fronting) bajo de ingles y en esta clase ah si me me gusta tambien pero con un livelo mas alto se puede conversar con los estudiantes de sus paises y como es la vida en sus paises y otras partes (.) es muy interesante

A como se sienten en este pais?

I ahm usualmente se sienten ahm al principio un poco ahm (.) depen depende la persona (.) depende ah y la persona (.) y tambien depende de (.) cual pais (.) ah si son ah imigrantes en en que esquema esquema del gobierno si tienen familia aqui o (.) son ahm no (.) no se como se dice en español refugees no se si

A si y tienes estudiantes de El Salvador por ejemplo?

I si ah muchos espechialmente ah el año (.) al fin del año pasado cuando era un como un huera en El Salvador ah vinieron muchos personas del Salvador: (Verb-Subject) si sus historias son muy triste y ah (.) esto lado del mi trabajo es es triste (.) muy triste

A mm veo y

I algunas veces si muy triste porque la cuentan la muchas ah cosas terible

A y

I y po po un australiana como yo es una cosa increible que estas cosas (.) pa pasar (.) otros lugares de otros paises (.) al algunas veces ah es dificil crear creer pero yo se que: (Verb-Subject) (.) las historias son (.) la verdad

Stage Four

A sales los domingos los sabados que haces el fin de semana?

I (.) eh todos los fines de semana usualmente estudio durante los fines de semana (Adverb Fronting)

A español

I (.) español (.) al menos si yo trato de estudiar español yo paso ahora hoy en dia paso mucho tiempo con mi novia y la conoci el año pasado el medio del año pasado y tambien ella estudia en el colegio conmigo

A que estudia ella?

I ella esta estudiando ah la ciencia medica de laboratorio pero ella quiere hacerse medico eh entonces pero no se ofrece ah la medicina en el colegio: (R-clitic) ni en Canberra entonces es necesario es necesario que ella estudie aqui...

A por que le gustaria ir a North Canberra?

porque es dificil ah entrar es dificil estudiar la medicina en Australia se necesitan buenas buenos puntos?: (R-clitic) ah eh y ella no tuve excelentes puntos desde el colegio

A como?

I desde la ella no obtuvo bueno excelentes puntos buenos puntos de la escuela secundaria aqui pero ella tiene muchisimas ganas de hacerse medico eh entonces es necesario estudiar necesario probar si misma? eh en otro curso por dos años y despues oh despues seria posible matricularse en North Canberra para estudiar el la medicina eh una propia la medicina real

A y cuando acabe donde piensa trabajar?

I ella? en B

A aha por que en B?

I le gustaria trabajar en B o en cualquier cualquier pais del mundo tercero porque tiene ganas de ah tiene ganas de hacerse medico no solamente para ganar dinero como es el caso entre muchos estudiantes hoy en dia pero ah su proposito principal es que ella le gustaria ayudar a la gente pobre especialmente de B por ejemplo de donde viene su familia: (Inversion)

I ah es una escuela cara [risas] mas o menos por ejemplo cuesta quinientos dolares de los Estados Unidos cada mes cada cuatro

semanas para estudiar en la escuela por tiempo completo pero ah en la escuela se opera bajo el sistema de inmersion total entonces eh se estudia con un profesor dentro

Stage Five

I en mil novecientos ochenta y cuatro creo si ochenta y cuatro y pues pues nada me costaba y los seis meses fueron los meses: (R-clitic) mas dificiles en España porque yo me me meti en un ambiente: (R-clitic) pues bastante español no vivia con personas que hablaron ingles en ingles y pues nada tengo que decir que durante el dia enseñaba el ingles a los chavales españoles por lo cual podia hablar en ingles porque daba clase a los avanzados en el colegio de tercero de BUP y COU y pues daba las clases totalmente en el ingles y tambien mi jefe en el departamento de ingles alli en el colegio era español pero vamos habia estado el muchos años en Inglaterra eh tenia un titulo de una universidad de Londres por lo cual muchas veces hablabamos en ingles pero yo aprendi mas o menos me defendia en espanol despues de seis meses: (Correct verb marking over various tenses/aspects)

A y tu cuando llegaste a España entendias a la gente?

I no no tengo que decir que no no entendia nada de nada del español pero por (.) tener la pinta que tengo muchas veces la gente ahi no me creia cuando les dije que que no hablaba el español: (Obj-clitic)

A y que pinta tienes tu?

I pues pues yo tengo una pinta bueno vivia en el Pais Vasco y tengo que decir que pues (.) parezco muy vasco por la barba (.) y es que tengo una o tenia una una abuela portuguesa por lo cual es que tengo esa pinta

A bueno pues entonces cuando tu llegaste a España dijiste que no hablabas español

I no

A y por que te intereso España? por que no fuiste a otro pais latinoamericano?

I bueno es que en España en esta parte de España habia un colegio que me interesa estudiar realmente donde de: (Adverb-F) enseñar (.) sobre todo su sistema de preceptuacion y pues (.) de verdad (.) habia otro otros colegios y otros sitios pero no se porque me interesa (.) me interese en este momento a ir a (.) a: (Obj-cl) España tambien tenia ilusion aprender (.) otro (.) otra idioma

A o sea que no sabias absolutamente nada

I bueno nada nada pues (.) no pero no me defendia en español cre creo decir que que podia (.) pedir cosas en español (.) pero entender (.) la gente (.) no no no podia entender la gente cuando hablaban porque es que (.) de verdas es que (.) la gente ahi hablaba para mi muy rapido (.) y me costaba a distinguir los sonidos (.) en el principio (.) de salir España despues de estar dos años (.) pensaba que todavia me faltaba algo mas a dominar bien el español pero tenia que (.) volver a Australia para empezar un colegio (.) con algunos amigos (.) y he dejado España a los finales de ochenta y cinco: (No inappropriate Subject PNs)

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